

ABSTRACT OF THE DISCLOSURE

An addition image generation module 10 sequentially timewise adds images (input images) of still pictures at 5 individual discrete time points included in a motion picture to be analyzed, thereby generating two kinds of addition images (image A and image B), respectively including images of still pictures at different discrete time points with the images being added at different 10 ratios. Matrix development modules respectively take out pixel groups (first pixel group $a(i, j)$ and second pixel group $b(i, j)$) located in a predetermined area (for example, in an area having a size of 3×3), from the generated image A and image B. A motion detection module 15 compares the taken out first pixel group $a(i, j)$ and second pixel group $b(i, j)$, to detect a motion component in the motion picture to be analyzed. A movement direction detection module compares the taken out first pixel group $a(i, j)$ and second pixel group $b(i, j)$, 20 while spatially shifting these groups, to detect the movement direction in the motion picture to be analyzed.